creating healthy communities

Photo: Jon Britt

As we look back on what we've accomplished over the past 30 years, we have come to realize that we need to bring our environmental protection efforts closer to home. We now recognize that preserving the environment isn't simply about protecting a beautiful far away place such as a forest or a beach. It is about enhancing our communities—the places where we live and raise our families.

Over the past five years, EPA New England has been a national leader in finding new ways to give our communities the tools they need to address the environmental and public health problems that threaten them. And the benefits are being felt in all corners of the region, from Burlington, VT and Bridgeport, CT to Providence, RI and Presque Isle, ME.

Revitalizing our Urban Neighborhoods

Residents in urban areas throughout New England are exposed to a disproportionate share of environmental and public health hazards, ranging from asthma and lead poisoning to air toxics and contaminated industrial sites. The effects of these hazards are further compounded by limited economic development opportunities, social ills and, often, little political power. In 1995, EPA New England launched a pilot program, the Urban Environmental Initiative (UEI), to tackle the complex challenge of making environmental and public health improvements in our urban cities.

The UEI program is all about community-based environmental protection. Focusing on neighborhoods in Boston, Hartford and Providence, the UEI team has made public involvement the foundation of its efforts to help community partners build their capacity for solving their own environmental problems. Some of UEI's urban environment and public health projects include:

•In Providence, which has among the highest lead poisoning rates in the country, we've tested more than 100 vacant lots for lead contamination. The sampling effort is being coordinated with a city program to sell vacant lots to neighborhood residents for $1.

•In Boston, we've helped launch an award-winning program in Dorchester that trains local youths in lead testing and abatement for residential properties, thus providing both environmental improvements and job training. We're also helping to restore waterfront properties on Chelsea Creek in East Boston and Chelsea.

•In Hartford, we've trained community educators on lead poisoning and asthma prevention, efforts that have reached thousands of children and their parents.

To obtain more information about UEI, visit our web site: **www.epa.gov/region01/eco/uei**

Brownfields

All across New England abandoned industrial sites plague our cities and towns and hinder revitalization. For years and sometimes decades, these Brownfield properties have sat dormant due to fears of environmental contamination and the potential costs of cleaning the sites up.

EPA's Brownfields Program is reversing this trend, benefitting both our cities and our rural areas which are scrambling to protect precious open space. Through grants, site evaluations and other assistance, EPA New England has helped

Protecting Neighborhoods Near Logan Airport

Residents of Chelsea, East Boston, Somerville, Winthrop and Roxbury know all too well what it is like living near Logan Airport. Hour after hour, day after day, year after year, the airport generates noise, traffic congestion and compromised air quality. Last year, EPA New England set an important precedent by opposing construction of a new runway at Logan largely on the grounds that it would, once again, unfairly and disproportionately burden neighboring communities.

Citing environmental justice issues, we told the Federal Aviation Administration that communities around Logan should not be asked to accept the impacts of further expansion unless and until Massport, the airport's operator, takes specific steps. In particular, we asked Massport to reduce noise and traffic impacts from the airport's current operations and to work harder to shift more of Logan's customer base to regional airports and rail alternatives.

EPA's strong opposition to the runway played a major role in the FAA's decision in January to delay any approval of the runway. As a result of that decision, Massport will be required to do additional environmental studies on whether and how a new runway can be built without placing an unfair burden on Boston's neighborhoods.

1990
The World's Largest Oil Spill is Caused during the Gulf War when five tankers and hundreds of storage tanks and oil wells are blown up in Kuwait by Iraq, releasing a total of 294 million gallons of crude oil.

1990
Merrimack River Watershed Initiative is launched, using National Estuary Program as a model.

1990
The Ocean Liner *Bermuda Star* and *Barge Bouchard* run aground off Falmouth, MA in separate incidents, spilling a total of 107,000 gallons of oil.

November 15, 1990
Clean Air Act Amended, with major new programs addressing smog, acid rain and air toxics.

clean up dozens of contaminated properties, resulting in thousands of new jobs and millions of dollars of tax revenues for municipal coffers. Since the start of the program in 1995, nearly $30 million in federal funds has been invested in identifying, investigating and cleaning up these properties in New England.

Much of the Brownfields redevelopment has been in the cities that need the most help. In Bridgeport, CT and Lowell, MA, residents are flocking downtown to see the Bridgeport Bluefish and Lowell Spinners minor-league baseball teams play in stadiums built on former Brownfield sites. At both locations, EPA grants were used to evaluate the sites for contamination. In Warwick, RI, the T.H. Bayliss site was assessed with EPA funds, leading to a decision to use the property for a new intermodal rail station linked to T.F. Green Airport. And in Stamford, CT, the city recently issued the first low-interest loan of its kind in the country—a loan made possible from an EPA grant—that will help a developer clean up a property along Long Island Sound for new housing and a waterfront walkway.

Wrestling with MTBE Pollution

MTBE (methyl tertiary butyl ether), a compound used in reformulated gasoline (RFG), has been found at low levels in about 15 percent of the drinking water wells tested in New England. Although the air quality benefits of using reformulated gasoline have been significant – a 35 percent reduction of air toxics and up to a 20 percent reduction in smog-forming pollutants—MTBE is about 30 times more

Underground Storage Tanks in New England: A Success Story

New England has been a national leader in complying with federal regulations requiring that underground storage tanks (USTs) be upgraded, removed or replaced to prevent leaks and spills. All six of the New England states have compliance rates exceeding 90 percent. Maine, Vermont, New Hampshire and Rhode Island lead the pack at 97 percent compliance or better. The compliance push has resulted in nearly 70,000 USTs being closed in the region since 1986 when the UST program began. The 38,000 tanks still in service are state-of-the-art, leak-resistant tanks.

1991
First Completed Construction of Cleanup Remedy at an NPL site in New England– Cannons Engineering, Bridgewater, MA.

1992
Ban on Dumping of Sewage Sludge into ocean and coastal waters.

1991
EPA Coordinates Use of Recycled and Recyclable Products by Federal Agencies where possible.

1992
United Nations Earth Summit Conference on Environment and Development in Rio de Janeiro, Brazil.

Getting to Yes: The Pine Street Barge Canal Superfund Site Agreement

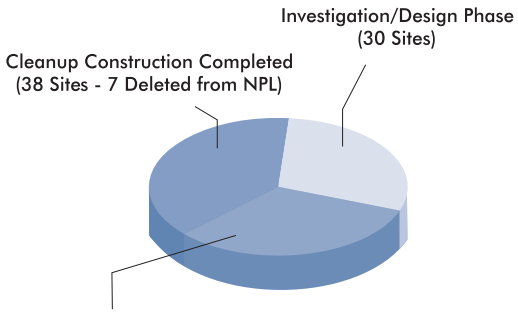
"This agreement proves that communities can play a crucial role in solving these difficult issues and that the federal government is willing to listen." — Vermont Governor Howard Dean

Last fall, EPA New England finalized a first-of-its-kind agreement with 23 parties responsible for contamination at the Pine Street Barge Canal Superfund site in Burlington, VT. Crafted by a first-in-the-nation citizen council, the $7.3 million agreement addresses environmental risks to Lake Champlain, provides for projects to compensate for past resource damages and allows for commercial redevelopment of the site.

The agreement came six years after EPA withdrew its original $50 million cleanup proposal due to local opposition and initiated a consensus-building process. Together, we developed a cleanup strategy that both protects the environment and is acceptable to the community. The responsible parties collectively agreed to participate in cleaning up the site and undertake a wetland enhancement project at a nearby farm. They also agreed to voluntarily spend up to $3 million on additional environmental projects in the Burlington area.

Progress in Superfund Site Cleanups

Today, there are more than 1,200 Superfund sites on EPA's National Priorities List (NPL) nationwide,100 of which are in New England. Study or cleanup is underway at all of these sites. At 38 of the 100 sites, EPA has completed all construction associated with the cleanup.



source: EPA New England

Raymark: Turning a Superfund Site into a Wal-Mart

"Redevelopment initiatives have become a chief goal of Superfund cleanups and now the Raymark site is a shining star of those efforts." — Editorial in *The Connecticut Post*

The former Raymark waste site in Stratford, CT will soon be a linchpin of the local economy thanks to an EPA cleanup that is being touted as a national model. EPA New England's Superfund team designed the cleanup from the very beginning to allow for retail redevelopment of the 34-acre property. Among the design features was incorporating pilings into the protective cap so that the site could support the weight of a shopping center.

This past January, three mega-retailers—Wal-Mart, Shaw's Supermarkets and the Home Depot—offered a winning bid of $24 million for the commercially prime property adjacent to Interstate 95. The money will help offset the substantial cost of cleaning up the site. The retail complex will contribute up to 800 permanent jobs, $1 million in local property taxes and $4.5 million a year in retail sales taxes to Connecticut's economy. And, by building the shopping center in downtown Stratford instead of on the outskirts, sprawl has been avoided and open space preserved.

1992
Residential Lead-Based Paint Hazard Reduction Act directed EPA to promulgate regulations for lead based paint activities.

1993
Curbside Recycling Triples Recycling Rate for Nation's Trash from 7% in 1970 to nearly 22%

1993
EPA's Common Sense Initiative shifts from pollutant-by-pollutant regulatory approach to industry-by-industry approach to achieve better results in a more efficient cost-effective manner for businesses and taxpayers.

Using Enforcement to Protect Workers and Jobs

Protecting both worker safety and job stability, EPA New England negotiated an innovative settlement last year that requires Aerovox Inc. of New Bedford to address widespread PCB contamination problems at its manufacturing facility along the Acushnet River. The agreement required the company to take immediate actions to reduce employee exposure to PCBs, close and relocate its operation within 16 months, and undertake a comprehensive cleanup of its nine-acre property. In addition to protecting workers and the environment, the agreement helps preserve hundreds of jobs in the community. Aerovox has already begun relocating its operations to a new industrial park in the city. A groundbreaking ceremony was held in the summer of 1999.

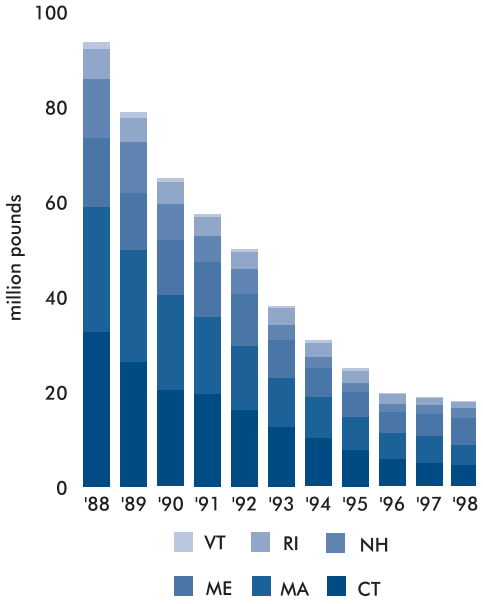
soluble in water than most other components of gasoline. Therefore, it moves through the groundwater at a very rapid rate. MTBE creates an unpleasant taste and smell in drinking water even at low levels, and is a possible human carcinogen. Sources of MTBE in drinking water wells are most likely to be gasoline releases from point sources such as pipelines and underground storage tanks or gasoline spills —including small spills of less than 10 gallons.

EPA is concerned about the detections of MTBE in drinking water and is moving aggressively to phase out the use of MTBE as an oxygenate in gasoline. In order to phase out the use of MTBE, Congress must modify current statutory requirements mandating a 2 percent oxygenate level in RFG, a requirement which has been met primarily through the addition of MTBE. EPA's goal is to protect public health and the environment by ensuring that Americans have both cleaner air and water—and never one at the expense of the other.

Keeping Track of Toxics

EPA is strongly committed to expanding the amount of environmental information available to citizens and communities. One of the first right-to-know programs at EPA is the Toxic Release Inventory (TRI) started in 1988. TRI requires facilities using or manufacturing any of 650 chemicals to report how much they released into the air, water or transfer waste offsite (Figure 8). This information is available in an electronically accessible national database at:

Figure 8. Trends in Toxic Releases
(Total to Land, Air and Water)



source: EPA Toxic Release Inventory

1994
First Completed Construction of the Remedy at a RCRA Site in New England– IBM, Essex Junction, VT

July 1995
Recovery of American Bald Eagle population allows upgrade from Endangered to Threatened Species

1994
Brownfields Program Launched to help communities revitalize abandoned, contaminated sites so they can be returned to productive use.

1994
List of Toxic Chemicals Reported to Public under Community Right-To-Know Laws doubles

October 1995
EPA New England Launches Charles River "Fishable & Swimmable by 2005" Program, Gives River Water Quality a Grade of D.

www.epa.gov/tri and is also being used by many groups to compile their own publicly available scorecards.

The TRI program has been hugely successful, spurring dramatic reductions in the use and discharge of toxics all across the country. From 1988 to 1998, TRI manufacturing facilities nationwide reduced their onsite and offsite environmental releases by 45.3 percent. Over the same period, New England manufacturers reduced their releases of toxics to the environment by 80 percent; decreases in air releases accounted for 90 percent of these reductions.

EPA has expanded the program several times to include additional chemicals and types of facilities that must report and, recently, seven "new sectors" began reporting to the TRI. A new class of TRI chemicals, known as persistent, bioaccumulative toxics (PBTs), was also added to the inventory. EPA is continuing to find more ways of giving people and communities the information they need to be informed about their environment and to be effective in protecting it.

Recycling Results

Twenty years ago, when less than 10 percent of the region's trash was being recycled, most of our waste was being trucked to ever-scarce landfills and a spate of new incinerators which posed air pollution concerns. Today, New England states have some of the highest recycling rates in the nation—and they're still going up. Most communities have achieved 25 percent recycling rates and some national role models in our region—the City of Worcester, for example—have reached over 50 percent. Over nine million people in New England recycle their trash.

EPA New England is working to further expand the frontiers of recycling so that electronic products (computers, monitors and televisions), construction debris, food waste and other materials can also be diverted from landfills and incinerators. Over the past four years, these efforts in creating new markets have resulted in more than 200,000 tons of recyclable materials being recovered and 200 new jobs being created.

We are also promoting a new concept in waste management called Pay-As-You-Throw. Under this new system, trash collectors (typically towns or cities) charge customers according to each bag of trash that they generate. This encourages residents to recycle more and throw away less. The boost in recycled materials also boosts revenues, which can result in lower property taxes that pay for trash collection. EPA's national goal is to reach a 35 percent recycling rate by 2005. That would mean reducing the amount of trash generated to 4.3 pounds per person per day. By implementing new recycling incentives and supporting and expanding recycling markets, New England is well on its way toward reaching this goal.

Restoring Troubled Waters

Over the past 30 years, states, tribes and federal governments have successfully rallied to meet challenges of improving polluted waterways. These often require unique approaches, but to be successful, they all need the involvement and support of local communities. Three examples in New England are presented here.

The Charles River Initiative

EPA New England's campaign to make the Charles River fishable and swimmable by Earth Day 2005 continues to make remarkable progress (Figure 9). Due to a variety of efforts by a broad coalition of river advocates, the river met boating standards 91 percent of the time and swimming standards 75 percent of the time during 1999. That's compared to only 39 percent and 19 percent compliance, respectively, in 1995.

Various activities are underway to cut the flow of pollutants into the river. Seven communities along the river have nearly completed the removal of illegal connections between sewer and storm drains, stopping the discharge of over a million gallons of untreated sewage into the river every day. All 10 communities on the Lower Charles have developed stormwater management plans that have been reviewed by national urban stormwater experts. And last year, the Clean Charles Coalition, a consortium of 15 private institutions on the river, launched a public awareness effort to focus energy and attention to the river cleanup.

1995
2 out of 3 Metropolitan Areas—unhealthy in 1990—now meet Air Quality Standards

1995
EPA's Project XL is Launched to help companies, facilities, communities and states develop innovative ways to achieve exemplary environmental results in common-sense and cost-effective ways.

November 1995
EPA New England Expands Indian Program by appointing EPA Tribe Coordinators for each of the nine tribal governments.

1995
National Marine Fisheries Service is forced to impose severe fishing and catch limits for cod and other groundfish on Georges Bank, as a result of depleted fish stocks

As the turnaround continues, the Charles is receiving more and more notoriety not just as a rowing mecca but as a national model for restoring highly urbanized rivers.

The Woonasquatucket: A River on the Rebound

The Woonasquatucket River, which flows 18 miles from North Smithfield to Upper Narragansett Bay, is the focal point of Rhode Island's urban revitalization efforts, particularly in downtown Providence where the river is the centerpiece for the nationally-acclaimed Waterfire shows. After years of neglect during and after the Industrial Revolution, the Woonasquatucket is now being targeted for cleanup activities and a "greenway." In August 1998, the river received national recognition when it was designated as an American Heritage River.

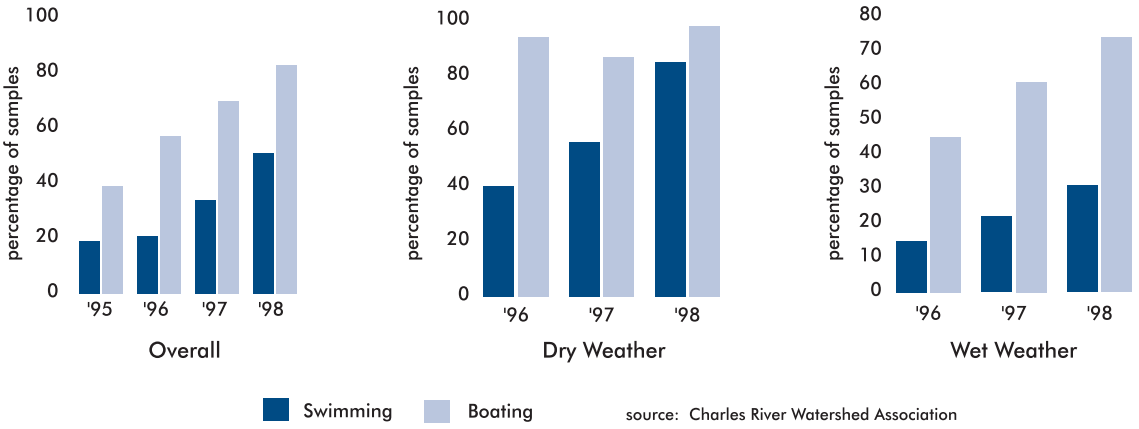
EPA New England has been actively involved with the Woonasquatucket since 1996, when the agency's Urban Environmental Initiative team first learned that urban residents were subsistence fishing and eel trapping in parts of the river. A subsequent EPA-sponsored sampling effort revealed dioxin contamination in the lower river, which led to a "catch and release" fish advisory that has been in place since fall 1996.

EPA New England is now working with state and local partners to determine the extent of the dioxin contamination and how it should be cleaned up. With strong local support, the site was recently named to the federal Superfund list which will ensure additional resources for a comprehensive cleanup. In the meantime, the UEI team has contacted thousands of residents about the "Do's and Don'ts for the Woonasquatucket River" to keep families safe. For more information, access our website at:
www.epa.gov/region01/ra/woonas/

Boston Harbor: An Environmental Success

In the 1980's, Boston Harbor was nationally renowned as one of the most polluted water bodies in the country. Billions of gallons of untreated sewage and industrial wastes spilled into the harbor every year, killing and contaminating marine life, closing beaches to swimming and causing odor problems for surrounding neighborhoods. Sewage treatment

Figure 9. Progress in the Charles River Basin - Samples Meeting Fecal Coliform Standards



source: Charles River Watershed Association

January 1996
***North Cape* Oil Barge Spills** over 800,000 gallons off Rhode Island's coast.

August 1996
Food Quality Protection Act changes the way EPA regulates pesticides. Requirements include a new safety standard—a reasonable certainty of no harm—that must be applied to all pesticides used on foods.

1996
EPA Takes Action to Prevent Development of Sears Island, Maine, the largest undeveloped island on the entire East Coast.

1996
Amendments to Safe Drinking Water Act establishes State Revolving Funds to help communities pay for water protection measures.

facilities were built in the 1950s and 1960s, but they fell into disrepair due to underfunding.

In 1985, EPA New England sued the Metropolitan District Commission and the Massachusetts Water Resources Authority (MWRA) for widespread violations of the Clean Water Act. The lawsuit resulted in a court order requiring the MWRA to build a secondary wastewater treatment system for 43 Boston-area communities. The new Deer Island treatment facility—easily recognizable by its futuristic looking egg-shaped sludge digesters—relies on aggressive industrial pretreatment and creative approaches to wastewater treatment, such as conversion of sewage sludge to fertilizer.

Benefits from the improved wastewater treatment have been enormous. The harbor's water is noticeably clearer, porpoises and harbor seals have returned to the area and concentrations of pollutants in fish and shellfish are down dramatically. We're also seeing more and more beaches open for swimming.

things you can do... pollution prevention tips

▶ Energy Conservation

- Paint your walls in a light color so more light is reflected
- Open blinds instead of turning on lights
- Dress warmly in winter so you can turn the heat down
- Reduce the temperature on your water heater
- Make sure your home is well insulated
- Turn off lights, fans, computers and the TV when they're not being used
- Use rechargeable batteries
- If it's not far, avoid using the car
- Use your clothesline as often as possible instead of a dryer
- Try carpooling or public transportation, even ONE day a week

▶ Bathroom

- Take shorter showers and use less water for baths
- Turn off the water while brushing teeth, shaving, etc.
- Check your toilet for "silent" leaks by placing food coloring in the tank and seeing if it leaks into the bowl
- Install a low-flow shower head and water-saver dam in the toilet tank

▶ Water Conservation in Your Home

Heating and pumping water requires energy. Energy, in turn, creates pollution such as acid rain and mercury emissions. If we can reduce the energy we use to pump and heat water, we can reduce pollution...and save money.

▶ Kitchen or Laundry

- Make sure your dishwasher and washing machine only run with full loads
- Compost your food scraps rather than using a garbage disposal
- Wash vegetables in a pan of water rather than under the faucet
- Use that same pan of water to pre-clean dishes after eating
- Keep a gallon of drinking water in the refrigerator rather than running the tap for cold water.
- Insulate your water pipes to save hot water

▶ Outdoors

- Wash your car with a bucket of soapy water rather than running the hose
- Keep a spring-loaded nozzle on the hose
- Wash your car less often or wash it at a car wash where they clean and recycle the water
- Use a broom instead of a hose to clean off your driveway or sidewalk

May 1997
Epa New England Issues Unprecedented Order Halting Military Training at Massachusetts Military Reservation on Cape Cod due to groundwater protection concerns.

February 1998
EPA Announces Clean Water Action Plan emphasizing collaborative watershed-based strategies to attain fishable and swimmable waters.

1997
EPA Establishes Children's Health Protection Office to make protection of children's health a fundamental goal.

January 1998
Eklof Marine Pays a $7 Million Criminal Fine for the 1996 North Cape Oil Spill off Rhode Island's coast - the largest oil spill fine ever in the continental United States.